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endothelial-derived growth factor, transforming growth factor β_1 , *etc.*), cytokines, prostaglandins, leukotrienes, endothelin-1, and nitric oxide (NO). In a preferred embodiment, the cells responding to the change in hemodynamic factors and responsible for producing the angiogenic factors may be endothelial cells, muscle cells, fibroblasts, epithelial cells, or smooth muscle cells.--

In the claims:

Please amend the claims as follows. For the convenience of the Examiner, all of the claims, in the form they will take after entrance of the present Amendment, are attached as Appendix B.

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1. (Amended) A method for treating a disease characterized by low blood flow by inducing angiogenesis, the method comprising steps of:
[providing a patient suffering from a disease characterized by low blood flow;]
attaching a compression apparatus to a body part of [the] a patient suffering from a disease characterized by low blood flow; and
applying graded sequential compression to the body part of the patient using the compression apparatus, wherein the compression delivers a maximum pressure of less than 300 mm Hg.
2. (Amended) A method for promoting wound healing, the method comprising steps of:
[providing a patient with a wound;]
attaching a compression apparatus to a body part of [the] a patient with a wound; and
applying graded sequential compression to the body part of the patient using the compression apparatus, wherein the compression delivers a maximum pressure of less than 300 mm Hg.
3. (Amended) The method of claim 1 or 2 wherein the graded sequential compression results in a reverse in direction of shear stress [seen by] to which the vascular endothelial cells of

the patient are subjected.

4. (Amended) The method of claim 1 or 2 wherein the graded sequential compression causes a 100% [change] increase in shear stress seen by the vascular endothelial cells of the patient.

5. (Amended) The method of claim 1 or 2 wherein the graded sequential compression causes a 50% [change] increase in shear stress seen by the vascular endothelial cells of the patient.

93 6. (Amended) The method of claim 1 or 2 wherein the graded sequential compression causes a 200% [change] increase in shear stress seen by the vascular endothelial cells of the patient.

7. (Amended) The method of claim 1 or 2 wherein the graded sequential compression causes a 400% [change] increase in shear stress seen by the vascular endothelial cells of the patient.

94 15. (Amended) The method of claim 1 or 2 wherein the graded sequential compression induces secretion of at least one molecule selected from the group consisting of platelet-derived growth factor, fibroblast-derived growth factor, epidermal growth factor, vascular endothelial-derived growth factor, prostaglandins, nitric oxide (NO) [NO], leukotrienes, and cytokines.

95 23. (Amended) The method of claim 22 wherein the inflatable bladder [may contain] contains a gas.

96 32. (Amended) A method for treating a disease characterized by low blood flow by inducing angiogenesis, the method comprising steps of:
[providing a patient suffering from a disease characterized by low blood flow;]

96 attaching an apparatus [to a body part of the patient] for delivering negative and positive pressure to a body part of a patient suffering from a disease characterized by low blood flow; applying negative pressure to the body part of the patient using the apparatus; and applying [positive pressure] graded sequential compression to the body part of the patient using the apparatus.

97 34. (Amended) A method for promoting wound healing, the method comprising steps of: [providing a patient with a wound;] attaching an apparatus [to a body part of the patient] for delivering negative and positive pressure to a body part of a patient with a wound; applying negative pressure to the body part of the patient using the apparatus.; and applying [positive pressure] graded sequential compression to the body part of the patient using the apparatus.

35. (Amended) An apparatus for compressing a part of a patient's body in order to induce angiogenesis or wound healing, the apparatus comprising:
a source of fluid;
a compression structure for receiving the fluid;
a control means for controlling the fluid to achieve inflation and deflation of the compression [means] structure, wherein the control means institutes inflation of the compression structure so that graded sequential compression of the body part by the compression structure results with a maximum pressure of less than 300 mm Hg.

98 41. (Amended) The apparatus of claim 35 wherein the apparatus further comprises a means for accelerating [the] withdrawal of fluid from the compression means.

99 45. (Amended) The apparatus of claim 44 wherein the means for mounting is hook and loop fasteners (Velcro®) [Velcro®].